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In re Application of

Shunichi Hosoyamada

Serial No.: 09/925,601 Group Art Unit: 2674

Filed: August 10, 2001 Examiner: Dinh, Duc Q.

For: METHOD AND CIRCUIT FOR DRIVING LIQUID CRYSTAL DISPLAY AND IMAGE DISPLAY DEVICE

Commissioner for Patents
Alexandria, VA 22313-1450

APPELLANTS' SUPPLEMENTAL BRIEF ON APPEAL

Sir:

On March 30, 2004, Appellants timely filed an Appeal Brief for the final rejection of claims 1-54 in the Office Action dated August 27, 2003. A Notice of Appeal was timely filed on January 30, 2004, concurrently with a Petition and the appropriate time extension fee.

In the Office Action, dated June 25, 2004, the Examiner reopened prosecution with a new rejection based on Appellant's Admitted Prior Art (AAPA), further in view of US Patent 5,790,092 to Moriyama.

Appellant submits that, to one of ordinary skill in the art, the new rejection suffers from the same issues being appealed and that, therefore, prosecution would not be advanced by having the prosecution reopened. Therefore, Appellants have filed concurrently herewith a Petition under 37 C.F.R. §1.181 to reinstate the appeal.

The contents of the Appeal Brief, filed March 30, 2004, are unchanged by the Examiner's reopening of prosecution and the arguments therein do not require any updates.

To address the new rejection of the Office Action dated June 25, 2004, based on the AAPA, further in view of Moriyama, Appellant submits the following analysis.

The Examiner relies upon the Appellant's Admitted Prior Art (AAPA) shown in Figures 12-16 and discussed at pages 1-7 of the specification. The Examiner concedes that this AAPA fails to reverse the polarity of the scanning and signal electrodes in the manner described by the rejected independent claims.

To overcome this deficiency, the Examiner relies upon US Patent 5,790,092 to Moriyama. The Examiner alleges that one of ordinary skill in the art would have been motivated to modify AAPA "... because it would provide a method for providing a liquid crystal display permitting an effectively reduced power dissipation in signal generation and/or effectively reduced vertical striped shades in frame control (col. 7, line 65-col. 8, line 2)."

Appellant submits that there are at least the following deficiencies in this rejection.

1. First, it is uncertain exactly what modification is being suggested by the Examiner. That is, it would appear that the Examiner intends to simply replace the pixel drive mechanism of the AAPA with that of Moriyama.

However, such simple replacement of mechanism would be improper, since it would clearly defeat the purpose of the AAPA drive mechanism and/or would clearly change its principle of operation. Both results are prohibited by MPEP §2143.02:

"*The proposed modification cannot render the prior art unsatisfactory for its intended purpose.*" and

"*The proposed modification cannot change the principle of operation of a reference.*"

2. On the other hand, if the Examiner's intent is to superimpose the checkerboard pattern shown in Figures 13A and 13B of Moriyama onto the pattern shown in AAPA, then the Examiner needs to clarify details of this alleged "superposition" operation. That is, there will clearly be conflicts of polarity for specific pixels, as well as pixels which will receive the same polarity, when the patterns are superimposed. That is, although it might make sense to consider that pixels of the same polarity will simply receive the maximum voltage of that polarity, there is the problem that pixels having conflicts of polarity would have drive voltage neutralized.

Therefore, the simple superposition of patterns would be improper, since some pixels will clearly have zero drive voltage, thereby rendering the purpose of the AAPA device inoperative.

3. The motivation to modify AAPA upon which the Examiner relies are taken out-of-context. These lines in columns 7 and 8 of Moriyama are directed to the benefits of that invention over the prior art of that reference. These benefits cannot be attributed to be applicable in other configurations. The Examiner would have the initial burden to demonstrate that AAPA would likewise benefit from either benefit.

More specifically, the details of the benefits of Moriyama over its described prior art, as shown in Figures 4A and 4B, are described at lines 22-31 of column 15. Since the Appellant's AAPA does not have the uniform checkerboard pattern shown in Moriyama Figures 4A and 4B, the Examiner has not met the initial burden of a reasonable allegation that power consumption would be reduced by merely making a conclusory statement based on lines of text taken out-of-context.

Additionally, the second alleged motivation given by the Examiner is a reduction in vertical striped shades. However, again, this motivation is taken out-of-context and is not applicable to the Appellant's AAPA, since its pattern is not the same as shown in Figures 4A and 4B of Moriyama. As clearly explained at lines 27-30 of column 15, Moriyama's "effective reduction of vertical striped shades" is due to the uniform distribution of the pattern shown in Figures 13A and 13B.

4. Most important, even if the pattern of Figures 13A and 13B of Moriyama were to be imposed on AAPA, the result would not satisfy the plain language of the rejected independent claims, as can be clearly discerned by one of ordinary skill in the art by comparing the pattern of Figures 13A and 13B of Moriyama with, for example, Figures 6A and 6B of the present application. It is perfectly clear that the checkerboard pattern of Moriyama differs from the slanted pattern of the present invention.

That is, taking claim 1 as an example, the plain language of the claim requires that pieces of the scanning electrodes be reversed in polarity for every 2n pieces. The "pieces of scanning electrodes" is the horizontal axis in Figures 13A/13B, wherein is shown the example in which n = 3, since there are three colors in that display scheme. In the

horizontal axis of Moriyama, the polarity reversal clearly occurs with every electrode, rather than with every 2n electrodes.

Hence, turning to the clear language of the claims, there is no teaching or suggestion for:"... reversing a polarity of each of said data signals for every 2n (n is a natural number) pieces of said scanning electrodes....", as required by claim 1.

In view of the above arguments and the previously-submitted arguments in the Appeal Brief, filed March 30, 2004, Appellants request that the Petition for Reinstatement of the Appeal be granted, and submit that claims 1-54, all the claims presently pending in the application, are sufficiently enabled and are clearly and patentably distinct from the prior art of record and in condition for allowance. Thus, the Board is respectfully requested to remove all rejections of claims 1-54.

Please charge any deficiencies and/or credit any overpayments necessary to enter this paper to Attorney's Deposit Account number 50-0481.

Respectfully submitted,

Dated: 9/24/04

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